

Early Detection and Preventive Treatment Services (EDAPTS)

**A Program for Prevention of Serious Mental
Illness in At Risk Youth**

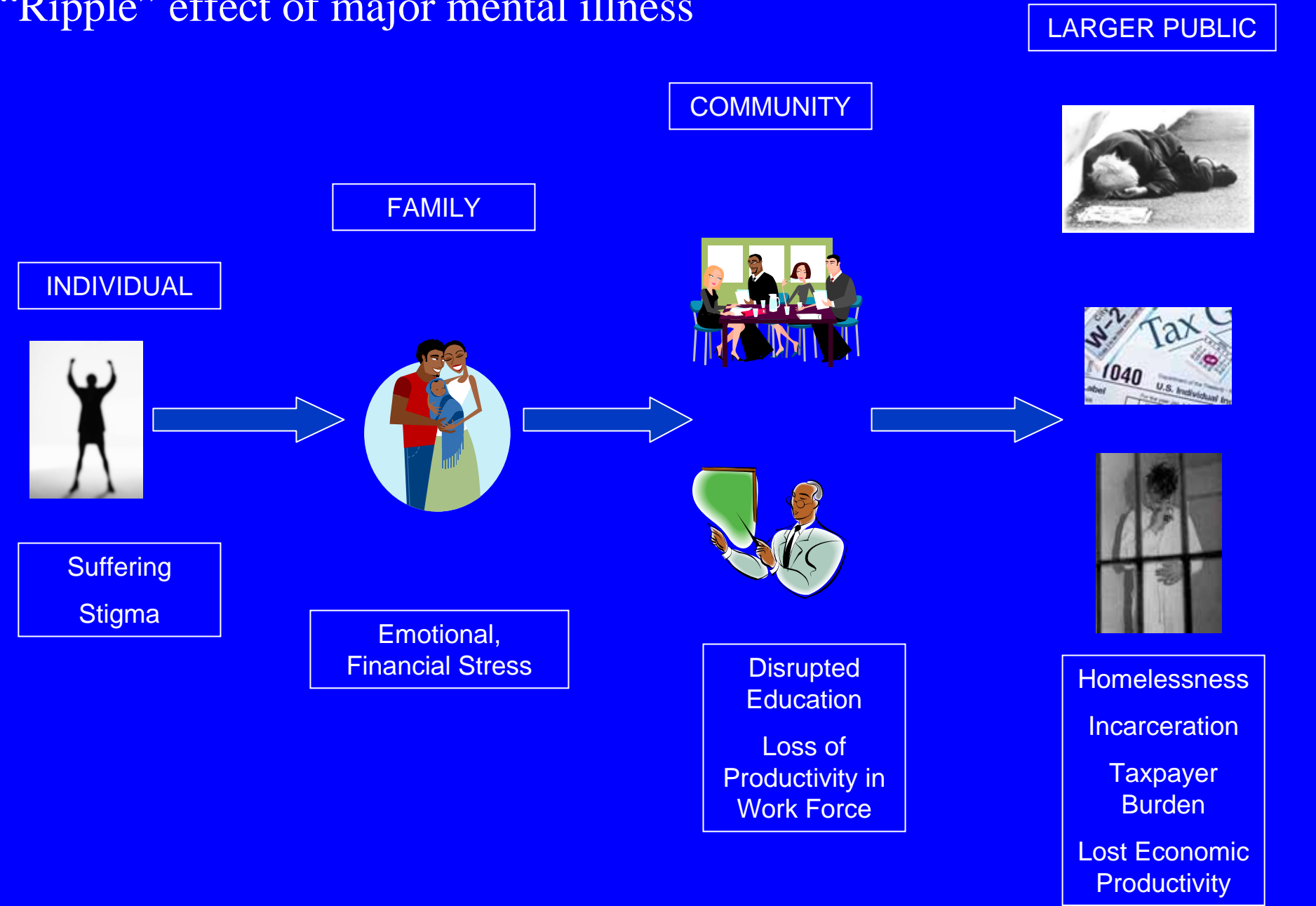
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“Ripple” effect of major mental illness



Top 5 Most Expensive Medical Conditions in US

1. Heart Disease
2. Pulmonary Disorders
3. **Mental Disorders**
4. Cancer
5. Trauma



–Kenneth E. Thorpe, Curtis S. Florence, and Peter Joski, [Which Medical Conditions Account for the Rise in Health Care Spending?](#), *Health Affairs*, 2004.

Costs of Mental Illness to Society

- Over \$62 billion annually for schizophrenia alone*
- \$22 billion for direct care
 - Outpatient services
 - Hospitalization
 - Drugs
 - Long-term care
- \$40 billion for other costs
 - SS Disability
 - Homelessness
 - Caregiver Services
 - Legal System Costs
 - Incarceration



*Based on 2002 data; Analysis Group Inc.

Prevention Strategies in Medicine

- Feasibility greatest for common diseases
 - E.g., breast cancer, obesity/diabetes, heart disease
- Screening of at risk groups for early signs of illness
 - E.g., mammography, liver function tests, EKG
- Invasiveness of intervention scales with stage of illness



Advantages

- Decreased morbidity
 - Decreased mortality
 - Reduced health care service utilization
 - Reductions in societal costs of care & work disability
 - Improved quality of life
 - Decreased care-giver burden
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- For common medical conditions, early detection and preventive intervention strategies have proven feasible and cost-effective

Can this approach be extended to MMDs?

- MMDs are quite prevalent
 - Cumulatively, ~10-15% lifetime prevalence
 - Schizophrenia spectrum (3-5%), bipolar spectrum (3-5%), recurrent (treatment resistant) major depression (5-8%)
 - 9,000 new cases of schizophrenia in California per year
- Can we identify particular groups who are at greatest risk (i.e., target for screening)?

The Pathway to Serious Mental Illness

Fetus: Genetic factors

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graph TD; A["Fetus: Genetic factors"] --> B["Fetus, infancy, childhood: Developmental abnormalities; Environmental 'insults'"]; B --> C["Early Adolescence: High risk behavioral changes; Stressors"]; C --> D["Adolescence, early adulthood: Onset of PSYCHOSIS"]; D --> E["Adulthood: Repeated psychosis, chronic MI"];
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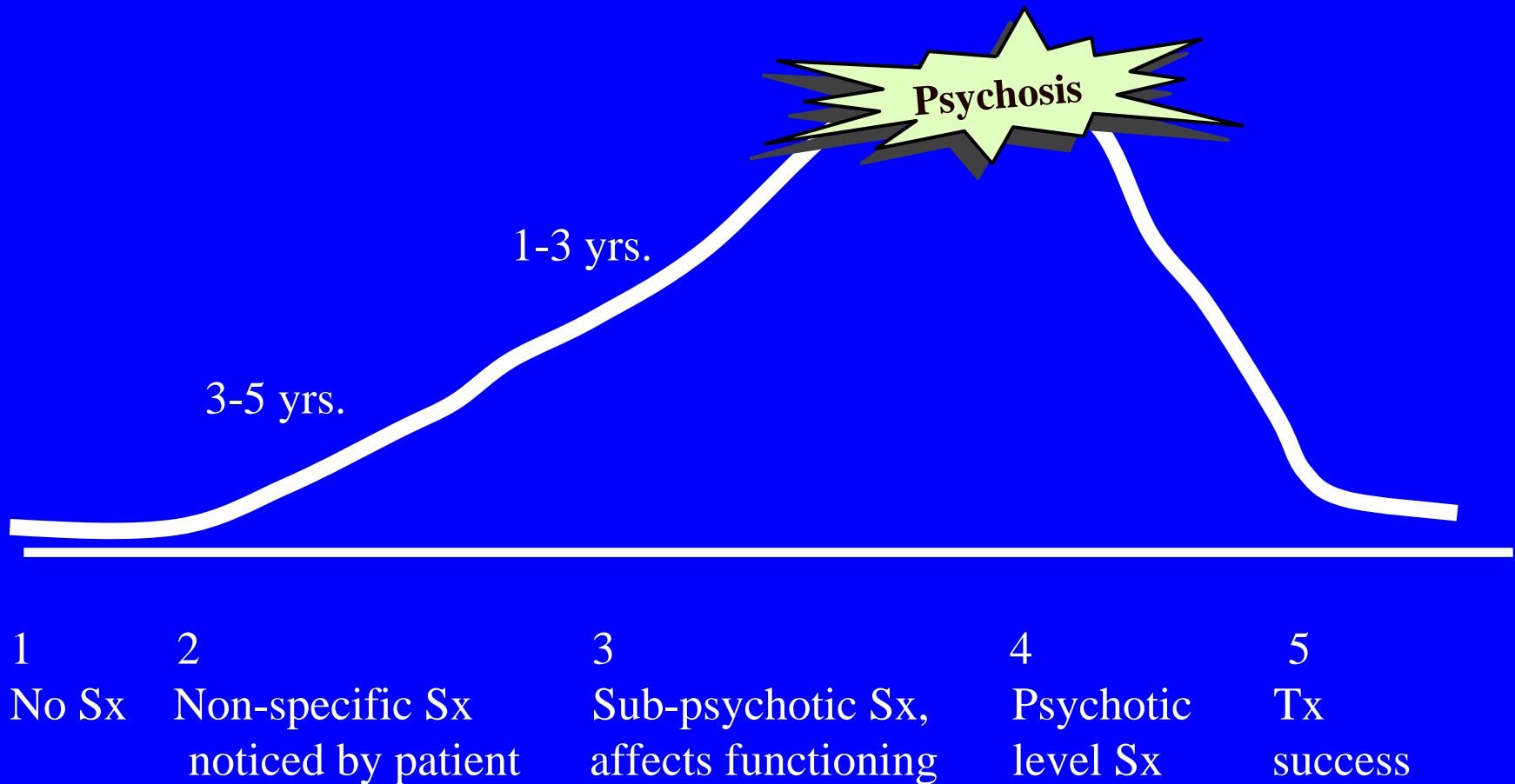
Fetus, infancy, childhood: Developmental abnormalities; Environmental “insults”

Early Adolescence: High risk behavioral changes; Stressors

Adolescence, early adulthood:
Onset of PSYCHOSIS

Adulthood: Repeated psychosis, chronic MI

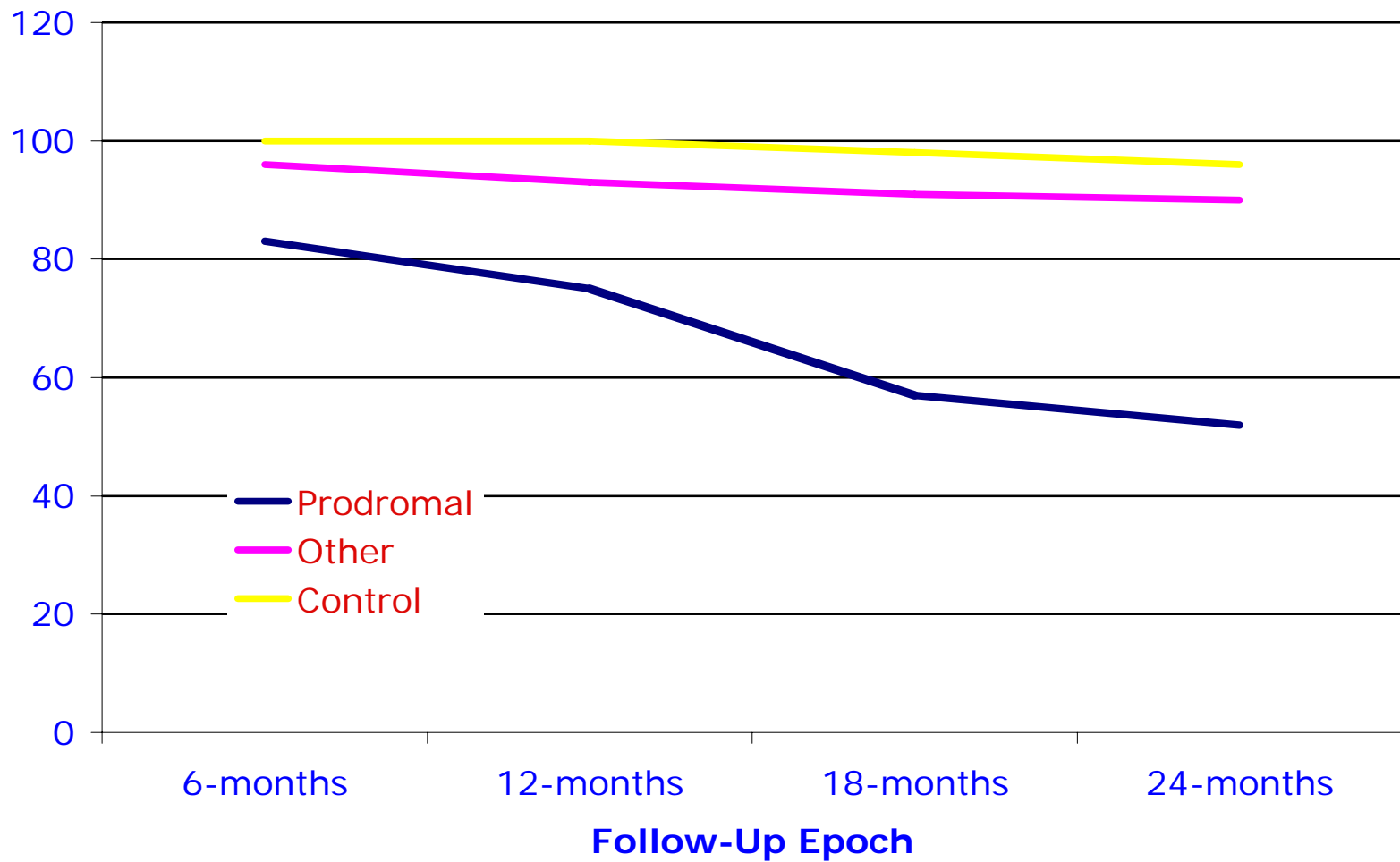
Model of Progression from Prodrome to Psychosis



Who Is at Greatest Risk?

- Young people between the ages of 12 and 30 who have experienced changes in their thoughts, behaviors or emotions in past 12 months
 - Hearing voices or seeing visions
 - Change in perception or misinterpretation of events
 - Developing a preoccupation with new or unusual beliefs
 - Behavior that is odd or eccentric
- First-degree relatives of schizophrenia patients who have undergone deterioration in social and role functioning in past 12 months

Conversions to Psychosis



Prodromal High-Risk Approach

- So, we know whom and when to screen, and a screening interview with adequate reliability & predictive validity
- Next question: How to intervene?

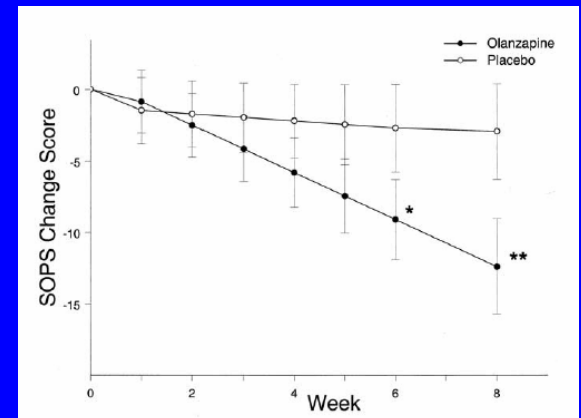
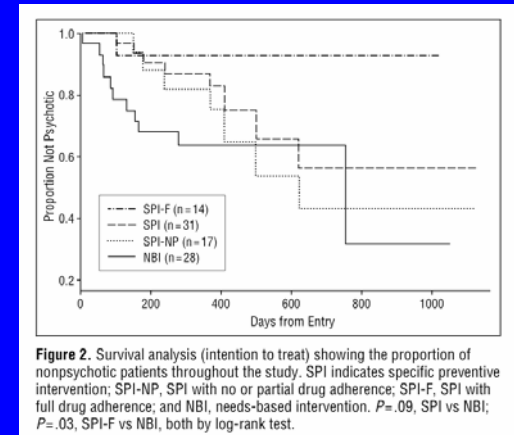
Drug Treatment of Schizophrenia

Factors Associated with Response

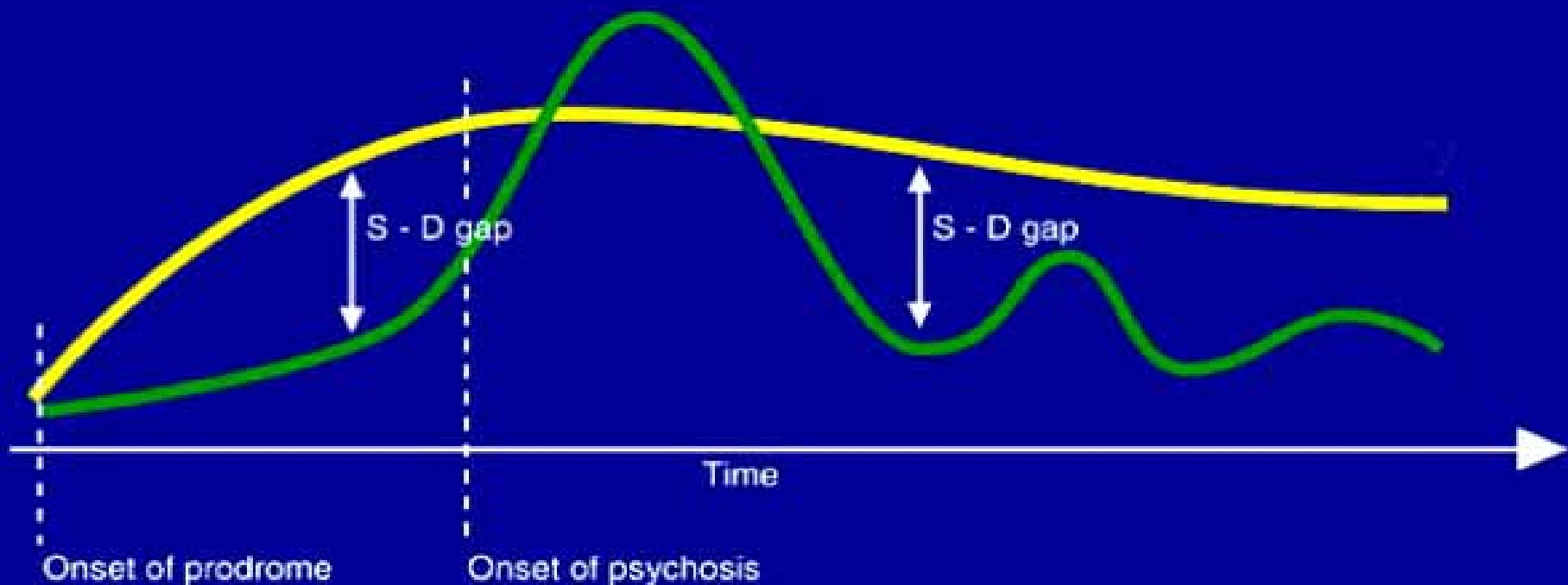
- Antipsychotic drugs produce (at least partial) symptom relief in most patients, but response is variable, and cognitive and role functioning deficits largely refractory
- A longer duration of untreated psychosis (i.e., time between onset of symptoms and the initiation of treatment) is associated with:
 - Poorer drug response
 - Increased likelihood of relapse
 - Poorer long-term outcome

Drug Treatment in the Prodromal Phase of Schizophrenia

- 2 small-scale clinical trials (N=60 in each case)
- Patients on medications had greater symptom reduction and less risk of conversion than placebo group
- Differences appear to go away after discontinuation of drug therapy and with longer periods of follow-up
- Drug treatments associated with significantly greater side effects (e.g. weight gain)



Symptom-Disability Gap

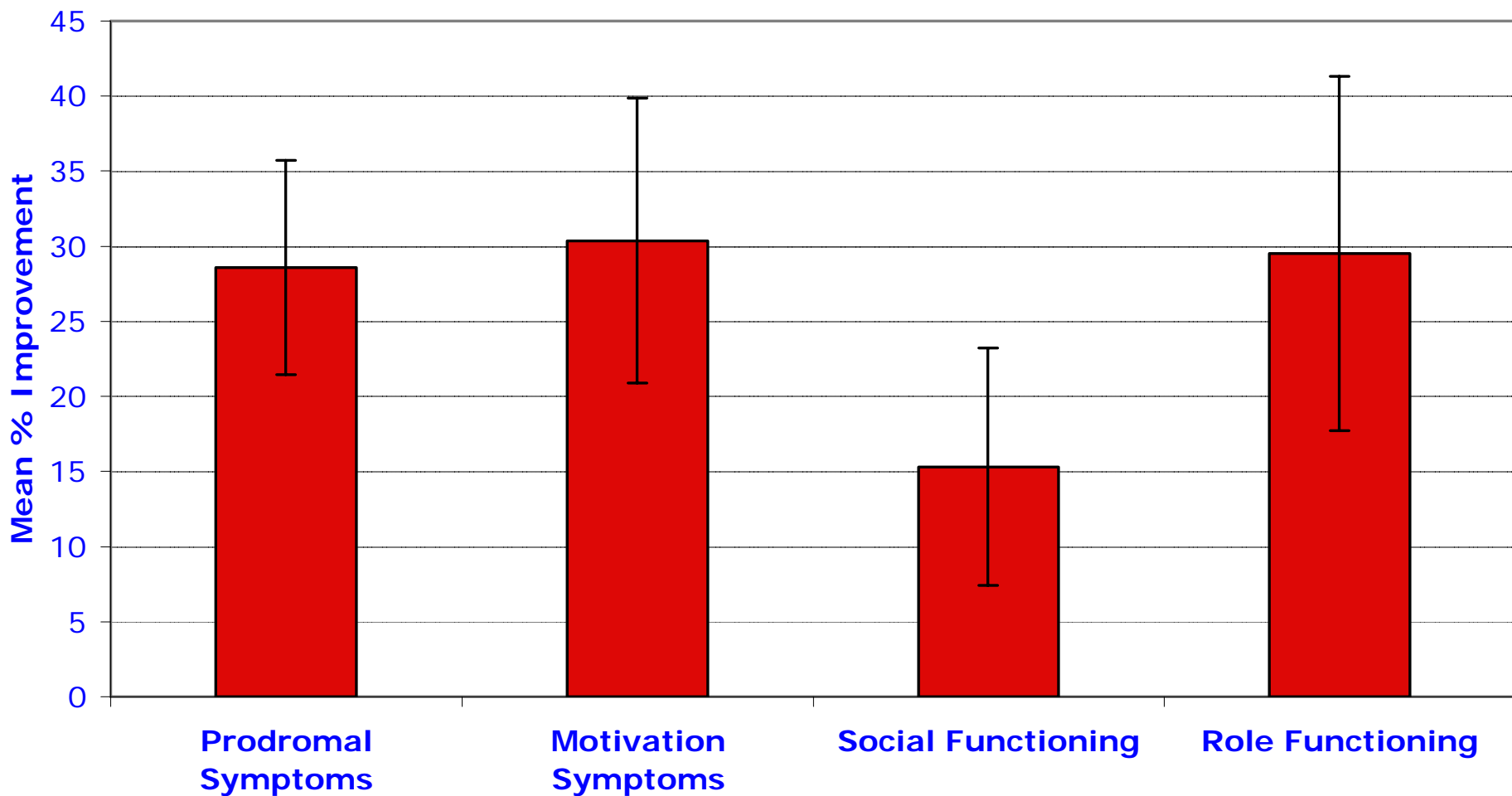


UCLA Prevention Research Center

- Psychosocial treatment package focusing on prevention of social & occupational disability
 - Multi-family groups
 - Case management
- Drug treatment as needed
 - ~50% on atypical anti-psychotics, ~70% SSRIs
- NIMH funded research program on neurobiological predictors of conversion and course of change



Improvement at 6 month followup in CAPPS patients (N=31)



Early Detection and Preventive Treatment Services (EDAPTS)

- Based on current knowledge base and procedures implemented in established programs (Melbourne, New Haven, Maine, Manchester, UCLA)
- Four University of California programs participating
 - UC Los Angeles
 - UC San Diego
 - UC San Francisco
 - UC Davis

The EDAPTS Program: Outreach into our communities

Transitional Age
Youth Services;
SFGH; Marin & San
Mateo County MHS

Sacramento County
Primary Care Clinic;
Child and Family
Access Team; SELPA
CMHA; NAMI

LA Unified School District,
West San Fernando
Valley MHS; Harbor
Medical Center; Edelman
MHS; LA, Orange, Kern
County MHS

San Diego,
Imperial, Riverside
County MHS;
NAMI; Marine
Corps

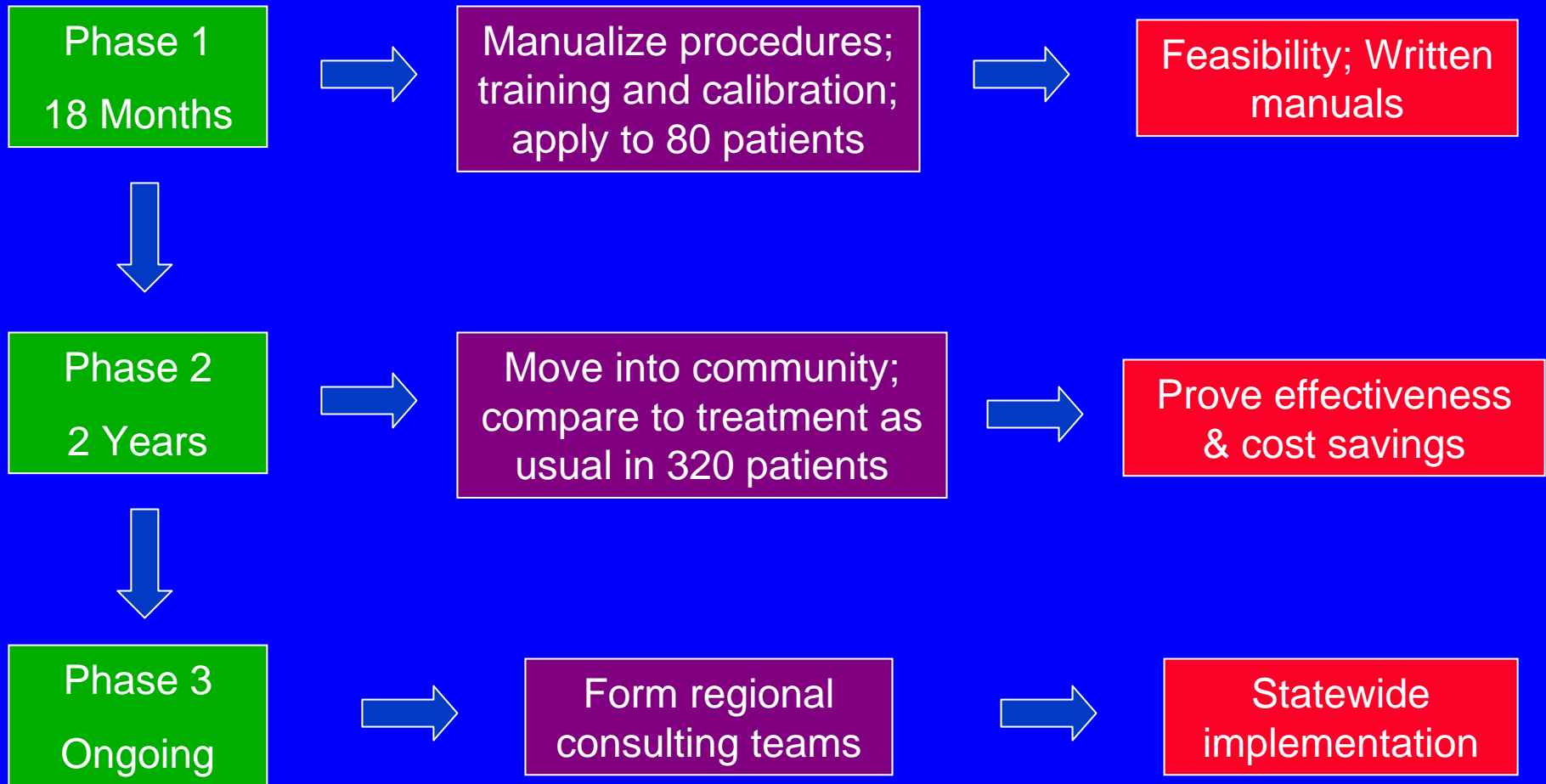


EDAPTS Modules & Goals

Module	Goals
1. Community-based education and outreach	↑↑ outreach, public knowledge, awareness; ↓ stigma
2. Ascertainment & assessment of at risk groups	↑↑ early identification; ↓ duration of untreated illness
3. Psychosocial interventions	↓ suicide, school failure, unemployment; ↑↑ functional outcomes
4. Pharmacological interventions	↓ severity/chronicity of symptoms

Overall goals: ↑↑ access for underserved populations; measure quality, progress, and success of outcomes

Roadmap to the EDAPTS Program



Primary Advantages

- *Leverages investments* made in early detection & intervention programs at 4 UC medical centers
- Will provide *scientifically acceptable standard of proof* of differential effectiveness of EDAPTS compared with treatment as usual
- Will *quantify benefits to taxpayers* in terms of reductions in the cost of care and disability